A central theme of the eight Millennium Development Goals (MDGs) agreed on by UN member states in September 2000, is the alleviation of poverty within a context of sustainable development. The MDGs provide a unique headway in the fight against poverty by focusing on the achievement of quantified and time bound development targets concerning income and non-income measures of well being. Individual goals accordingly focus on poverty and hunger, education, gender equality, infant and maternal mortality, disease, the environment, and development. For each goal there are concrete targets that countries have agreed to meet over a 25-year period, 1990–2015, as well as quantifiable indicators of progress.1

Millennium Development Goal 7, “ensuring environmental sustainability,” has three targets and eight indicators (see table 1). The targets have to do with sustainable development, access to safe water and sanitation, and improvement of the lives of slum dwellers. In this note we examine the status and prospects of 28 countries of Europe and Central Asia (ECA) region with respect to the environmental goal. Drawing upon findings of a longer study,2 the note highlights gaps in knowledge, estimated costs of meeting specific targets, and recommended priority activities for the Bank.
The MDG indicators for environmental sustainability reflect important cross-sectoral linkages between the environmental, health, and poverty goals. For instance, better access to water supply and sanitation (WSS) brings about reductions in waterborne disease and, consequently, in morbidity and mortality, especially among children. Better health, implies less sick time and higher capacity for income generation. Improved management of natural resources and expansion of protected areas can contribute to rural development and higher rural incomes. This can be particularly beneficial to the rural poor who tend to rely on natural resources for sustaining their livelihoods. Efforts to improve energy efficiency and reduce carbon emissions are important for the global environment, but they also have concrete local effects: wider access to cleaner fuels, decreased indoor and outdoor air pollution, and less respiratory and cardiovascular disease. These improvements are especially important to poor women and children, who are most exposed to indoor air pollution stemming from use of solid fuels for heating and cooking. Finally, alleviation of slum conditions has obvious implications for health and poverty. The links between the environment, health, and poverty indicators are complex and depend on numerous contextual and institutional factors.

### Methodology and Scope

Data collection and analyses for the study were carried out for about 8 months (from October 2002 to June 2003). In the first instance information was taken from the World Bank database on the proposed indicators, and this was supplemented by in-depth investigations at the country level. Where discrepancies were found, these were investigated further and their policy implications commented on. In addition, the study reviewed the suitability of the official indicators as measures of the targets. In a number of cases they were not considered appropriate and so new indicators were proposed and, where possible, data on them collected. Finally, a first attempt was made to estimate the costs of improvement for the following indicators:

- Carbon dioxide reduction and, water supply and sanitation improvement. This was done using detailed cost data collected by the Bank during implementation of projects in these areas. Owing to a lack of time and resources, this first phase covered only three selected countries — Kazakhstan, Moldova and Ukraine.

### Status of ECA Countries with Respect to the MDG7 Targets

As a group, and in comparison with all low- and middle-income countries, the ECA countries are performing well on such MDG indicators as improved water supply and sanitation (figure 1), but they lag with respect to percentage of protected land area, carbon dioxide emissions and energy efficiency. A closer look at the indicators under each target, however, reveals some concerns.

#### Target 9: Sustainable Development

- **Forested area.** Although forest cover in ECA is above the world average, across the region the extent of continuous old-growth forest is declining. The available aggregate data do not reflect local problems such as illegal logging and pollution from acids and heavy metals that can damage for-
Cost (US$/ton)
Marginal costs of carbon reduction in Russia, 2008–12

100
150
200
250
50

Central Asian countries where major institutional reforms are needed. Typically the roles of ministries of environment. The biggest challenges are in the local incomes. The study assessed countries' policies and institutions, specifically the roles of ministries of environment. The biggest challenges are in the Central Asian countries where major institutional reforms are needed.

If ECA countries are to meet the sustainability target, institutional reforms in the management of natural resources are critically needed. For example, simply increasing the area protected or under forest cover is not enough; the key issue is management as part of a sustainable livelihoods strategy that increases local incomes. The study assessed countries' policies and institutions, specifically the roles of ministries of environment. The biggest challenges are in the Central Asian countries where major institutional reforms are needed.

Target 10: Water Supply and Sanitation

Currently, 91 percent of the region’s population has access to safe water and 93 percent to sanitation. The targets for 2015 are 94 and 95 percent, respectively. Although the difference to be made up seems small, complacency is not warranted: the real challenge in ECA is to stop and reverse deterioration in water quality and in services. For example, water may not meet health standards and may not be available for 24 hours of the day, and leakage from poorly maintained sewers may contaminate water supplies. Access to improved water supply and sanitation is most problematic in the countries of the Commonwealth of Independent States (CIS), especially in Central Asia, and in Albania and Romania. Quality problems are significantly worse in rural areas, but many urban areas are in need of urgent action to prevent the collapse of delivery systems.

Target 11: Slums

No data on the proportion of households with secure tenure—the MDG indicator for slum conditions—have been collected in ECA. Indeed, the MDG definition of “slums” as dwellings with insecure tenure is not very relevant in ECA countries, where people virtually cannot be evicted from their housing. Clearly, since transition began in the region, more than a decade ago, cities have become more spatially differentiated into poor and rich areas, and slums—areas with concentrations of poor people and with poorly constructed and maintained housing and infrastructure—are growing. Slums are being monitored and studied in Dushanbe (Tajikistan), Tomsk (Russia), Tirana (Albania), and Bishkek (Kyrgyz Republic).

Cost Implications of Meeting the Targets for Energy and for Water Supply and Sanitation

The cost analysis concentrated on selected countries and on the indicators for carbon dioxide mitigation, and water supply and sanitation infrastructure. No estimates were made for the slum improvement target because the necessary data were lacking.

Carbon emissions. Figure 2 shows the estimated marginal costs of decreasing carbon dioxide emissions mitigation in Russia over the period 2008–12 to meet the targets set by the UN Framework Convention on Climate Change. About 220 million tons of carbon could be saved at no net cost; that is, the reduction programs have offsetting benefits. Similar cost estimates were made for Kazakhstan and Ukraine. The substan-

**Figure 2**

Marginal costs of carbon reduction in Russia, 2008–12

Source: Golub and others (1999).
Figure 3
Annual investment in WSS in Kazakhstan, Moldova, and Ukraine

<table>
<thead>
<tr>
<th>Country</th>
<th>Required 2003-15</th>
<th>Actual 2000-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>Moldova</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Ukraine</td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>


Priorities for Bank Support

A focus on MDG 7 has a number of implications for the selection of Bank projects and programs at the country level. Selected priority areas for addressing each target are discussed below.

Target 9. The Bank will provide advice on necessary institutional reforms; promote projects that can use Bank instruments such as the CDCF to reduce carbon emissions and make sustainable livelihood objectives an integral part of conservation and forestry projects in the region. The Bank’s new forest conservation and forestry projects in Kyrgyz Republic, Moldova, Romania, and Tajikistan. The second phase will concentrate on small and medium–size cities and rural areas in Romania, Russia, and Ukraine, which have some of the largest population centers in the region.

Target 10. In selecting the focus countries for water supply and sanitation, the Bank’s regional management looks at existing needs, the poverty level, current project lending, and proposed project lending that offers opportunities for dialogue and investment. In the first phase the focus will be on the countries with the most deteriorated water supply systems: Albania, Armenia, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Romania, and Tajikistan. The second phase will be crucial to addressing initiatives such as these and the challenges posed by the environmental MDG.

Carbon trading, and other initiatives to foster energy efficiency.

Currently, the Bank is conducting a follow-up study to develop more robust data for the MDG indicators in ECA countries and to modify certain indicators to make them more applicable for the ECA area. The World Bank’s activities in partnership with governments, donors and other organizations will be crucial to addressing initiatives such as these and the challenges posed by the environmental MDG.

References


Notes


2. This note is based on a longer study undertaken by the World Bank (2003a) that assessed the current status and prospects of 28 countries of the Europe and Central Asia (ECA) region with respect to the environmental goal. The study was carried out between October 2002 and June 2003 and was prepared as part of the Bank’s contribution to the Kyiv ministerial conference in May 2003.